CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

MONITORING AND REPORTING PROGRAM REQUIREMENTS ORDER NO. R3-2009-0032

(Waste Discharger Identification No. 3 359907001)

FOR
NATURAL SELECTION FOODS, INC.
FRUIT AND VEGETABLE PROCESSING WASTE RECYCLING FACILITY
SAN BENITO COUNTY

This Monitoring and Reporting Program Requirements (MRP) is issued by the Regional Water Quality Control Board, Central Coast Region (Water Board) pursuant to California Water Code section 13267 and is incorporated into Master Reclamation Requirements Order No. R3-2009-0032. Natural Selection Foods, Inc. (hereafter, 'Discharger') is subject to the MRP because it discharges recycled water. This MRP is necessary to ensure that the discharge of treated and recycled water complies with the requirements of the Master Reclamation Requirements and are protective of public health and the environment.

SUPPLIER REQUIREMENTS

A. WATER SUPPLY MONITORING

Representative samples of all facility water supply sources shall be collected and analyzed for the constituents and at the frequency specified below:

Parameter/Constituent[a,b,c]	Units	Sample Type	Sampling Frequency
General Minerals[d]	mg/l	Grab	Annually (April)

Notes:

a) Sampling results for the California Department of Public Health (DPH) may be submitted to satisfy these requirements.
b) Data shall be reported as individual concentrations for each water supply well sampled and calculated as flow weighted averages to represent as delivered water supply quality.
c) Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
d) General Mineral analysis shall include the following constituents: Calcium, Magnesium, Sodium, Sulfate, Carbonate, Bi-Carbonate, Chloride, Total Hardness, Total Alkalinity, Fixed Dissolved Solids, pH, Electrical Conductivity, Boron, Iron, and Nitrate (as N).

B. CHEMICAL USAGE MONITORING

A summary of volumes and types of any chemicals used at the Discharger's facility shall be included with each monitoring report.

C. PRODUCTION MONITORING

Facility production shall be reported as follows:

Parameter/Constituent	Units	Sample Type	Sampling Frequency
Start and End of Processing Season	Dates	--	Annually (December)
Fruits and Vegetables Processed	Tons/year	Measured	Annually (December)

D. INFLUENT MONITORING

Representative samples of the treatment facility influent shall be collected and analyzed for the constituents/parameters and at the frequencies specified in the following table:

Parameter/Constituent[a]	Units	Sample Type[b]	Sampling Frequency[c]
Flow Volume	MGD	Metered	Daily
Peak Daily Flow	MGD	Calculated	Monthly
Average Daily Flow	MGD	Calculated	Monthly
pH	pH units	Grab	Weekly
Settleable Solids	mg/l	Grab	Weekly
Biochemical Oxygen Demand (BOD_5)[f]	mg/L	24-hour composite	Weekly
Total Suspended Solids	mg/L	24-hour composite	Weekly
Total Kjeldahl Nitrogen (as N)[f]	mg/L	24-hour composite	Quarterly
Total Nitrogen (as N)[f]	mg/L	24-hour composite	Quarterly
Nitrate (as N)[f]	mg/l	24-hour composite	Quarterly
Nitrite (as N)[f]	mg/L	24-hour composite	Quarterly
Fixed Dissolved Solids	mg/L	24-hour composite	Quarterly
Sodium	mg/L	24-hour composite	Quarterly
Chloride	mg/L	24-hour composite	Quarterly
Sulfate	mg/L	Grab	Quarterly
Boron	mg/L	Grab	Quarterly
Perchlorate	mg/L	Grab	Quarterly
Total Trihalomethanes[d]	mg/L	Grab	Quarterly
Total Trihaloacetic Acid[e]	mg/L	Grab	Quarterly

Notes:

a) Sampling for specific analytes may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
b) Composite samples will cover discharge through one day of operation.
c) Quarterly monitoring shall be conducted in January, April, July, and October.
d) Includes the following: chloroform, bromodichloromethane, dibromochloromethane, and bromoform.
e) Includes the following: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.
f) Influent sampling for BOD_5, nitrite, nitrate, TKN, and total nitrogen may not be required for discharges with low organic and nutrient load wastewater. The Discharger must submit sufficient documentation to support the removal of influent monitoring for BOD_5, nitrite, nitrate, TKN, and total nitrogen to Water Board staff and approved by Water Board prior to removal.

E. POND MONITORING

Representative samples of wastewater contained in unlined ponds located on land owned or leased by the Discharger receiving the Discharger's wastewater shall be collected and analyzed as follows:

Parameter/Constituent	Units	Sample Type	Sampling Frequency
Freeboard	ft	Measured	Weekly
pH	pH units	Grab	Weekly
Dissolved Oxygen (DO)	mg/L	Grab	Weekly
Nitrate (as N)	mg/L	Grab	Monthly
Fixed Dissolved Solids	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Boron	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
In addition to the above, facilities which use any form of chlorine for cleaning and/or disinfection shall analyze effluent samples for the following:			
Perchlorate	mg/L	Grab	Monthly
Total Trihalomethanes[a]	mg/L	Grab	Monthly
Total Trihaloacetic Acid[b]	mg/L	Grab	Monthly

Notes:

a) Includes the following: chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

b) Includes the following: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

F. SECONDARY TREATED, SECONDARY DISINFECTED TREATED, AND TERTIARY DISINFECTED TREATED EFFLUENT MONITORING

Representative samples of secondary treated, secondary disinfected treated, and tertiary disinfected treated effluent shall be collected[a] and analyzed for the constituents/parameters and at the frequency specified below from the Discharger's treatment facility:

Parameter/Constituent[b]	Units	Sample Type[c]	Sampling Frequency[e, f, g, h,i]
Flow	MGD	Metered	Continuous
Peak Daily Flow	MGD	Calculated	Daily
Average Daily Flow	MGD	Calculated	Daily
Turbidity[m,n]	NTU	Metered	Continuous
Total Chlorine Residual[d,m]	mg/L	Metered	Continuous
Total Coliform[m]	MPN/100 ml	Grab	Daily
BOD_5	mg/L	24-hour composite	Weekly
Total Suspended Solids	mg/L	24-hour composite	Weekly
pH	pH units	Grab	Weekly
Nitrate (as N)	mg/L	24-hour composite	Weekly
Fixed Dissolved Solids	mg/L	24-hour composite	Monthly
Sodium	mg/L	24-hour composite	Monthly
Chloride	mg/L	24-hour composite	Monthly
Sulfate	mg/L	24-hour composite	Monthly
Boron	mg/L	24-hour composite	Monthly
Total Nitrogen	mg/L	24-hour composite	Quarterly
Nitrite (as N)	mg/L	24-hour composite	Quarterly
Total Kjeldahl Nitrogen (as N)	mg/L	24-hour composite	Quarterly

Parameter/Constituent [b]	Units	Sample Type[c]	Sampling Frequency[e, f, g, h,i]
Aluminum	mg/L	24-hour composite	Annually
Antimony	mg/L	24-hour composite	Annually
Arsenic	mg/L	24-hour composite	Annually
Silver	mg/L	24-hour composite	Annually
Berylium	mg/L	24-hour composite	Annually
Cadmium	mg/L	24-hour composite	Annually
Chromium, Total	mg/L	24-hour composite	Annually
Copper	mg/L	24-hour composite	Annually
Cyanide	mg/L	24-hour composite	Annually
Chromium VI	mg/L	24-hour composite	Annually
Lead	mg/L	24-hour composite	Annually
Mercury	mg/L	24-hour composite	Annually
Nickel	mg/L	24-hour composite	Annually
Selenium	mg/L	24-hour composite	Annually
Thalium	mg/L	24-hour composite	Annually
Zinc	mg/L	24-hour composite	Annually
Pesticides[l]	mg/L	24-hour composite	Annually
In addition to the above, facilities which use any form of chlorine for cleaning and/or disinfection shall analyze effluent samples for the following:			
Perchlorate	mg/L	24-hour composite	Semi-Annually
Total Trihalomethanes[j]	mg/L	24-hour composite	Semi-Annually
Total Haloacetic Acids[k]	mg/L	24-hour composite	Semi-Annually

Notes:

a) Sampling shall occur immediately following the final treatment process (i.e. disinfection or dechlorination as applicable) unless noted otherwise
b) Sampling for specific analytes may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
c) Composite samples shall be flow weighted.
d) Shall be compared to the chlorine residual required to achieve a minimum CT value of 450 milligram-minutes per liter.
e) Weekly samples shall be collected on a Monday through Friday rotating schedule.
f) Monthly sampling events shall be separated by at least 16 days and no greater than 45 days.
g) Quarterly monitoring shall be conducted in January, April, July, and October
h) Annual monitoring shall be conducted in July
i) Semiannual effluent monitoring shall occur in April and October.
j) Includes the following: chloroform, bromodichloromethane, dibromochloromethane, and bromoform.
k) Includes the following: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.
l) U.S. EPA Method 8081
m) Not required for secondary treated effluent.
n) Not required for secondary disinfected treated effluent.

G. WASTE DISPOSAL AND STORAGE FACILITY MONITORING

Recycled water storage reservoirs shall be inspected daily. Weekly visual inspections will be allowable for water storage reservoirs fitted with reliable electronic remote depth gauging systems. Notes shall be kept of observations and shall be summarized in annual monitoring reports. In the event of impending freeboard violation, storage pond overflow, or backflow into the treatment plant, the Executive Officer shall be notified immediately.

Representative sampling measurements shall be taken in each recycled water storage reservoir for the parameters/constituents and at the frequency specified below:

Parameter/Constituent [a,b]	Units	Sample Type[a]	Sampling Frequency
pH	pH units	Grab	Weekly
Dissolved Oxygen	mg/l	Grab	Weekly

Notes:

a) Grab sample for pH and DO shall be collected at one-foot depth from at least three representative locations within each treatment and disposal pond.

H. SOLID WASTE DISPOSAL MONITORING

A summary of estimated volumes and disposal locations of screenings, sludge, and solids shall be included with each monitoring report.

I. EQUIPMENT CALIBRATION

Calibration records of flow meters and other process instrumentation performed in accordance with manufactures' recommendations and best management practices for the industry will be kept on site and made available to Water Board staff upon request.

J. GROUNDWATER MONITORING

The Discharger shall implement groundwater monitoring. The Executive Officer may request geologic and hydrogeologic documentation to ascertain whether the existing monitoring well network is sufficient to verify compliance with Master Reclamation Requirements and whether additional monitoring wells are required based on review of available groundwater data. Groundwater samples shall be collected from each monitoring well (at least three representative monitoring wells - one upgradient and two downgradient **at each disposal area**) and analyzed as follows:

Parameter/Constituent	Units	Sample Type	Sampling Frequency[c]
Depth to groundwater	Ft.-BGS[a] and Ft-MSL[b]	Measured	Quarterly
pH	pH units	Grab	Quarterly
Fixed Dissolved Solids	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Sodium	mg/L	Grab	Quarterly
Boron	mg/L	Grab	Quarterly
Sulfate	mg/L	Grab	Quarterly
Nitrate (as N)	mg/L	Grab	Quarterly
BOD_5	mg/L	Grab	Quarterly
In addition to the above, facilities which use any form of chlorine for cleaning and/or disinfection shall analyze effluent samples for the following:			
Perchlorate	mg/L	Grab	Quarterly
Total Trihalomethanes	mg/L	Grab	Quarterly
Total Haloacetic Acids	mg/L	Grab	Quarterly

Notes:

a) Ft-BGS = Feet below grade surface
b) Ft-MSL = Feet above mean sea level
c) Quarterly monitoring shall be conducted in January, April, July, and October.

K. SAN BENITO RIVER WATER MONITORING

The Discharger shall implement surface water monitoring at the San Benito River. There is the potential for surface water quality impacts based on increased hydraulic mounding and groundwater flows at the disposal fields which are within 200 feet of the San Benito River. The following shall constitute the San Benito River water monitoring program for upstream and downstream locations. The Executive Officer may require additional San Benito River water monitoring if needed to adequately ensure compliance with the permit.

Parameter/Constituent	Units	Type of Sample	Sampling Frequency[a]
pH	pH Units	Grab	Quarterly
Temperature	^{o}F	Grab	Quarterly
Dissolved Oxygen	mg/L	Grab	Quarterly
Fixed Dissolved Solids	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Sodium	mg/L	Grab	Quarterly
Nitrate (as N)	mg/L	Grab	Quarterly
In addition to the above, facilities which use any form of chlorine for cleaning and/or disinfection shall analyze effluent samples for the following:			
Perchlorate	mg/L	Grab	Quarterly
Total Trihalomethanes	mg/L	Grab	Quarterly
Total Haloacetic Acids	mg/L	Grab	Quarterly

Note:

a) Quarterly monitoring shall be conducted in January, April, July, and October.

L. DISPOSAL AREA MONITORING

The Discharger shall inspect and document the condition of the spray disposal properties located near the San Benito River (approximately 18 acres) once daily during operation. Notations shall be made in a bound log book and include observations of excessive ponding and soil clogging in spreading basins, evidence of erosion, field saturation, runoff, odors, insects, or other potential nuisance conditions that may be present. Any problems shall be promptly corrected. A record shall be kept of the dates and nature of observations and corrective actions taken. A summary of the entries made in the log shall be submitted with each monitoring report. The following information regarding irrigation management at all disposal areas shall also be recorded daily and submitted with each monitoring report:

- Inches of precipitation.
- Irrigated areas.
- Daily acreage applied (acres).
- Daily application rate (gal/acre/day)
- Total nitrogen loading rate as a monthly average (lbs/acre/day)
- BOD_5 loading rate as a monthly average (lbs/acre/day)

M. DISPOSAL AREA SOILS MONITORING

The Discharger shall implement disposal area soils monitoring. In general, large facilities that discharge concentrated wastewater that is not adequately neutralized (to between pH 6.5 and 8.4) to soils with poor buffering capacity must perform soils monitoring according to the following instructions. The Discharger shall establish a soil profile monitoring location that is representative of the disposal area. This sampling location shall be provided on a map submitted to the Water Board for concurrence by the Executive Officer. Samples shall be collected and analyzed for the following constituents:

	Unit	Method	Sample	Frequency

Parameter/Constituent			Depths[2]	
Soil pH	pH units	1:2 DI Water (soil to solution ratio)	6 inches and 2 ft.	Annually (April)
Total Acidity	meq H^+ / 100 g soil	Measured by $BaCl_2$ – TEA (pH 8.3)[1]	6 inches and 2 ft.	Annually (April)

Notes:

a) See Methods of Soil Analysis (cosponsored by ASTM), American Society of Agronomy, Inc., Madison, WI.
b) Below base of disposal area.

Lime Application – If Soil pH is less than or equal to 6.0, the Discharger shall add lime to neutralize the disposal area soils. The amount of lime required for full neutralization is directly related to Total Acidity. For any representative sample of disposal area soils, multiply the Total Acidity value (meq of H^+/ 100 g soil) by 2000 to get the maximum lime application rate in lbs. pure lime per acre. The amount of lime applied should not exceed the calculated value.

NOTE: Gypsum ($CaSO_4*2H_2O$) applied to increase hydraulic conductivity does not neutralize acidity (gypsum is a neutral salt).

DISTRIBUTOR REQUIREMENTS

N. RECYCLED WATER USE AREA MONITORING

1. The quantity of reclaimed water distributed to each reuse site shall be recorded on a weekly basis. Total flows shall be metered or estimated based on irrigation run times and distribution system design flow rates. Total as applied flows shall be compared to Supplier effluent flow rates.

2. During periods of recycled water application the Distributor or Users, as applicable, shall inspect the irrigation use areas no less frequently than weekly to verify and document compliance with Order No R3-2009-0032. The visual inspections shall be noted in a bound inspection logbook(s) and at a minimum shall document proper sprinkler operation, runoff, erosion, saturated surface conditions, and odors. The logbook(s) shall be made available to the Water Board upon request. A summary of observations made during water recycling area inspections and a brief discussion of any corrective actions taken or planned shall be included with each annual monitoring report.

3. The Distributor and Users shall coordinate with the Water Board to ensure and document that backflow devices are present, tested annually by a certified individual, and repaired or replaced if found defective.

4. The Distributor shall inspect and document the operation of the reuse site irrigation systems at least quarterly to verify that the Users are operating the reuse sites in compliance with the uniform statewide reclamation criteria established pursuant to California Water Code Section 13521 and Order No. R3-2009-0032.

5. The Distributor, in coordination with the Users and water purveyor, shall perform and document a cross-connection test by an appropriately certified individual on an annual basis at each reuse site where both recycled water and potable water piping systems are utilized for irrigation or are otherwise present in proximity to each other.[1]

[1] Cross-connection tests will not be required for portions of the distribution system or reuse site areas for which no distribution system or potable water system maintenance, modifications, or additions have occurred since the last cross-connection test. The Distributor shall provide a certified statement as such for portions of the distribution system or reuse sites not tested for potential cross-connection.

6. The Distributor shall keep a record of all system modifications and document that all work is conducted in accordance with the Cross Connection Control Plan and applicable regulations.

7. The Distributor shall compile and conduct quarterly reviews of the applied recycled water flows to identify unusual usage behavior or significant changes. The Distributor shall conduct and document follow-up investigations if patterns change dramatically.

SUPPLIER AND DISTRIBUTOR REQUIREMENTS

O. REPORTING

1. The Supplier and Distributor shall submit **Semi-annual** self monitoring reports summarizing reclaimed water supplied and used at each reuse site. The semi-annual self monitoring reports shall include:

    a. Monitoring data results for the reporting period as required by this MRP.
    b. A list of the reuse sites with the name, location and brief description of each reuse site.
    c. The total amount of reclaimed water supplied to each reuse site.
    d. Records of the Distributor's or User's reuse site inspections and results of the annual cross-connection tests.
    e. The Nutrient Management Plan report as specified in Distributor/User Requirements.
    f. The Salinity Management Program report as specified in Distributor/User Requirements.
    g. The Groundwater Monitoring Plan report as specified in Distributor/User Requirements.
    h. All monitoring data shall be tabulated in a logical and coherent format and be accompanied by copies of laboratory analytical data sheets as applicable. The data shall be summarized in a manner that clearly illustrates compliance with the Order.
    i. The name of the hydrologic areas underlying each reuse site [Required pursuant to California Water Code Section 13523.1(b)(5)].

    The Quarterly monitoring reports shall be submitted as follows:

Monitoring Period	Report Due Date
December – May	July 31st
June – November	January 31st

2. The Distributor shall report any adverse conditions or non-compliance with Order No. R3-2009-0032 potentially endangering public health or the environment to the:

    a. Water Board (805/549-3147),
    b. San Benito County Environmental Health (831/636-4035), and,
    c. any other agencies as appropriate.

    Notice will occur within 24-hours of knowing of such conditions. A summary record of all adverse conditions or non-compliance along with corrective actions taken shall be included in each annual monitoring report.

    Depending on the severity of the adverse condition or non-compliance being reported, a written report may also be required by the Water Board. The written report shall be required within five days of the initial informal reporting date and shall contain (1) a description of the non-compliance and its cause; (2) the period of non-compliance, including dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and (3) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

3. All quarterly monitoring shall be performed in January, April, July, and October during the monitoring quarter (calendar quarter). Monthly sampling shall be conducted at regularly scheduled times during each month and consecutive events should be approximately four weeks apart and no less than two weeks apart. Unless otherwise specified by the Monitoring and Reporting Program, annual sampling shall be performed any time during the calendar year, but samples representative of two consecutive annual periods must be obtained at least six months apart.

4. All monitoring must be conducted according to test procedures established by 40 Code of Federal Regulations Part 136, entitled, "Guidelines Establishing Test Procedures for Analysis of Pollutants." All sampling analyses shall be conducted at the lowest practical quantitation limits achievable under U.S. EPA specified methodology. Constituents not detected at the analytical method detection limit will be considered in compliance with effluent limitations in cases where effluent limits are set below the analytical method detection limit.

5. All samples collected shall be tracked and submitted under chain of custody and analyzed by a laboratory certified by the California Department of Public Health for the specified analysis.

6. If the Supplier and Distributor monitor any pollutant or parameter more frequently than is required by this monitoring program, the results of such monitoring shall be included in the monitoring reports (i.e., quarterly groundwater elevation, etc.).

7. All monitoring reports shall be signed and certified in accordance with "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated January 1984, Sections C.14 and C.15.

8. The Discharger shall ensure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Executive Officer.

9. The Supplier and Distributor shall submit monitoring data and the monitoring reports electronically. The documents shall be in a searchable PDF format (less than 10 MG in

size) and emailed to **centralcoast@waterboards.ca.gov**. PDF documents that exceed 10MB should be transferred to a disk and mailed to the Water Board at:

California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

P. IMPLEMENTATION

1. This monitoring and reporting program shall be implemented September 11, 2009.

2. The Executive Officer my revise this MRP as appropriate.

Ordered By:

_____
Executive Officer

CRD
126-01
Paper File: Natural Selection Foods, Inc.
Electronic File: S:\WDR\WDR Facilities\San Benito Co\Natural Selection Foods\WRR R3-2009-0032\Draft Order\MRP R3-2009-0032.doc